3.0 ALTERNATIVES

3.1 FACTORS USED IN SELECTION OF ALTERNATIVES

3.1.1 Alternatives Development and Screening Process

One of the most important aspects of the environmental review process is the identification and assessment of reasonable alternatives that have the potential for avoiding or minimizing the impacts of a proposed Project. In addition to mandating consideration of the No Project Alternative, the State CEQA Guidelines (Section 15126.6(d)) emphasize the selection of a reasonable range of feasible alternatives and adequate assessment of these alternatives to allow for a comparative analysis for consideration by decision-makers.

The CEQA requires consideration of a range of alternatives to the Project or Project location that: (1) could feasibly attain most of the basic Project objectives; and (2) would avoid or substantially lessen any of the significant impacts of the proposed Project. An alternative cannot be eliminated simply because it is more costly, or if it could impede the attainment of all Project objectives to some degree. However, the State CEQA Guidelines declare that an EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote or speculative. The CEQA requires that an EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed Project.

3.1.2 Alternatives Screening Methodology

Alternatives to the proposed Project were selected based on information from EPNG and the EIR/EA study team. The alternatives screening process consisted of three steps:

Step 1: Define the alternatives to allow comparative evaluation.

Step 2: Evaluate each alternative in consideration of one of more of the following criteria:

- the extent to which the alternative would accomplish most of the basic goals and objectives of the Project;

- the extent to which the alternative would avoid or lessen one or more of the identified significant environmental effects of the Project;

- the potential feasibility of the alternative, taking into account site suitability, economic viability, availability of infrastructure, General Plan consistency, and consistency with other applicable plans and regulatory limitations;

- the appropriateness of the alternative in contributing to a "reasonable range" of alternatives necessary to permit a reasoned choice; and

- the requirement of the State CEQA Guidelines to consider a "no Project" alternative and to identify an "environmentally superior" alternative (State CEQA Guidelines, Section 15126.6(e)).

Step 3: Determine suitability of the proposed alternative for full analysis in the EIR/EA. If the alternative is unsuitable, eliminate it, with appropriate justification, from further consideration.

In the final phase of the screening analysis, the environmental advantages and disadvantages of the remaining alternatives were carefully weighed with respect to potential for overall environmental advantage, technical feasibility, and consistency with project and public objectives.

If an alternative clearly does not provide any environmental advantages as compared to the proposed Project, it is eliminated from further consideration. At the screening stage, it is not possible to evaluate potential impacts of the alternatives or the proposed Project with absolute certainty. However, it is possible to identify elements of the proposed Project that are likely to be the sources of impact. A preliminary assessment of potential significant effects of the proposed Project resulted in identification of the following impacts:

- temporary construction-related impacts to biological resources, air quality, and soil erosion and compaction;

- concerns for the health and safety of communities in the vicinity of the Project that have been constructed or expanded considerably since construction of the original All American Pipeline; and

- concerns related to the proximity of the pipeline to known active faults.

For the screening analysis, the technical and regulatory feasibility of various potential alternatives was assessed at a general level. Specific feasibility analyses are not needed for this purpose. The assessment of feasibility was directed toward reverse reason, that is, an attempt was made to identify anything about the alternative that would be infeasible on technical or regulatory grounds. CEQA does not require elimination of a potential alternative based on cost of construction and operation/maintenance. For the proposed Project, those issues relate to the feasibility of obtaining a new right of way, EPNG's assessment of constructability, and impacts to additional special-status species.

3.1.3 Summary of Screening Results

Potential alternatives were reviewed against the criteria presented above. A number of alternatives were eliminated based on EPNG's assessment of constructability, infeasibility of obtaining additional right of way, and traversing a new type of biological habitat, thus leading to impacts on additional special-status species. In addition, the alternatives that were eliminated did not meet the stated Project objective of converting existing pipeline infrastructure to natural gas use. Those alternatives that were found to be technically feasible and consistent with the Applicant's objectives were reviewed to determine if the alternative had the potential to reduce the environmental impacts of the proposed Project.

Potential alternatives are listed in Table 3-1 according to the determination made for analysis. Those listed in the first column have been eliminated from further consideration (see rationale in Section 3.2), and those in the second column are evaluated in this section and are described in detail in Section 4.0.

Table 3-1. Summary of Alternative Screening Results

Alternatives Eliminated from Consideration	Alternatives Evaluated in this EIR
Stallion Springs Reroute – North	Ehrenberg to Daggett Alternative
Stallion Springs Reroute – South	Ehrenberg to Cadiz Alternative
Bristol Dry Lake Reroute	No Project Alternative
Troy Lake Reroute	

3.2 ALTERNATIVES ELIMINATED FROM FULL EVALUATION

Two route alternatives have been proposed on the section of Line 1903 from Wheeler Ridge to Daggett. Two route alternatives have also been proposed on the section of Line 1903 from Daggett to Ehrenberg. These route alternatives would decrease the risk of existing communities adjacent to the pipeline being affected by potential ruptures in Line 1903 as a result of seismic activity or accidents.

Two Stallion Springs Route Alternatives would circumvent the community of Stallion Springs located approximately between MP 24 and MP 26.5. One route would circumvent the community to the north and one to the south of existing residences. These route alternatives are depicted in Figure 3.2-1. Residences in this area were built following completion of construction of the original All American Pipeline. Several residences are within the potential impact area of the Project should the pipeline rupture.

Two alternatives circumvent sections of the pipeline crossing dry lake beds and are presented in Figures 3.2-2 and 3.2-3. These dry lakes include the dry portion of Bristol Lake (MP 199.5) and Troy Lake (MP 147.5 to MP 150). These alternatives would reduce the potential for corrosion of Line 1903.

While these four alternatives potentially increase the safety of Line 1903, they do not meet the stated Project objective of converting existing pipeline infrastructure to natural gas use. Construction of these alternatives would create new disturbance on a new pipeline ROW. The Stallion Springs Route Alternatives would also traverse more biologically sensitive habitats than the existing Line 1903. The Ehrenberg to Daggett Alternative is superior to the Stallion Springs Route Alternatives as it accomplishes reductions in seismic and safety risks in the vicinity of Stallion Springs but does not create new disturbance areas. EPNG has also indicated that it prefers the Ehrenberg to Daggett Alternative to these route alternatives and would consider implementation of the route alternatives as either speculative or infeasible. Therefore, the Stallion Springs Route Alternatives are not analyzed further in this document.

In addition to creating new disturbance on a new pipeline ROW, the Bristol Lake Alternative would also place new ROW for Line 1903 close to the town of Amboy. Additionally, EPNG proposes as part of the Project, replacements of some sections of pipe at the existing dry lake crossings of Bristol Lake and Troy Lake on Line 1903.

These new pipe replacements would be sufficiently designed to minimize corrosion and potential accidents on the pipeline. Additionally, EPNG proposes additional surveillance of Line 1903 and cathodic protection systems to further protect the Line 1903. The two dry lake route alternatives are, therefore, eliminated from further analysis.

3.3 ALTERNATIVES EVALUATED IN EIR/EA

The alternatives evaluated in this EIR/EA were developed based on the potentially significant impacts of the Project, which include the following three concerns:

(1) temporary construction-related impacts on biological resources, air quality, and soil erosion and compaction;

(2) concerns for the health and safety of communities in the vicinity of the Project that have expanded considerably since construction of the original All American Pipeline; and

(3) concerns related to the proximity of the pipeline to known active faults.

The following three alternatives were retained for analysis in the EIR/EA: No Project or Postponed Project, Ehrenberg to Daggett," and the Ehrenberg to Cadiz. Each alternative is described in the following sections.

3.4 NO PROJECT/ACTION OR POSTPONED PROJECT/ACTION

3.4.1 Description

EPNG has applied to the BLM; CSLC; FERC; and other Federal, State, and local agencies for approval of the Project. These agencies have three courses of action in processing these applications: (1) granting the approvals with or without conditions, (2) denying the approvals, or (3) postponing action pending further study by denying the application without prejudice.

If the Project is postponed or denied, none of the potential environmental impacts identified in this EIR/EA would occur. Additionally, the objectives of the Project as described in Section 1.1, Project Purpose and Need and Project Objectives, would not be met. Specifically this means that EPNG would not attain needed system flexibility and additional capacity between its north and south systems and to southern California. The No Project or Postponed Project Alternative is further analyzed in Section 4.0, Environmental Analysis.

3.4.2 Required Agency Approvals

No agency approvals are required for the No Project Alternative.

3.5 ROUTE ALTERNATIVES

3.5.1 Ehrenberg to Daggett Alternative

The potentially significant impact on public safety identified in the Class 2 and Class 3 areas of the pipeline, near Barstow and western Kern County, led to the development of an alternative to avoid these more densely populated areas. EPNG developed an alternative to convert only the segment east of Daggett (MP 132.10 to MP 303.5, approximately 171 miles). This alternative would entirely avoid the Class 2 and Class 3 areas and traverse only unpopulated or sparsely populated areas.

The conversion activities for this segment would be identical in terms of disturbance and location to those on this same segment of the proposed Project. East of Daggett, the operation of the alternative would also be identical to the operation on this same segment of the proposed Project. EPNG would continue to maintain the internal and external integrity of the unconverted pipeline west of Daggett with a nitrogen blanket and cathodic protection. For this alternative, however, no appurtenant facilities and gas delivery or receipts would be made west of Daggett. No other construction activities would be conducted on the pipeline segment west of Daggett. Hydrostatic testing of the line would use water only from the Palo Verde Irrigation District canal. This water would be discharged at the Cadiz Pump Station. For this alternative, the 6.4-mile Cadiz Lateral would still be constructed to connect Line 1903 to the Mojave pipeline.

EPNG states that this alternative would substantially meet the Project purpose and need and Project objectives. The alternative would provide EPNG with an additional connection of its north system, originating in the San Juan basin, and south system, originating in the Permian basin. It would provide enhanced operational flexibility for shippers using the ENPG system. This alternative would not, however, provide additional flexibility for delivery west of Daggett to or from southern California markets. Natural gas sent to or from southern California would require the use of existing California infrastructure at Amboy and Daggett, including the Mojave Pipeline system. The alternative would still allow movement of natural gas from the Rocky Mountain region and Permian basin to southern California markets via Line 2000, the Kern River pipeline system, Kern River/Mojave Common Facilities at Daggett, and the North Baja

pipeline system atEhrenberg. The Ehrenberg to Daggett Alternative would still allow EPNG to transport gas from the Rocky Mountain area and California to Arizona, New Mexico, Texas, and Mexico with increased flexibility. Additionally, it would still allow EPNG to receive gas at Ehrenberg from the proposed LNG projects in Mexico and deliver the gas to customers in Arizona, New Mexico, Texas, and California.

The Ehrenberg to Daggett Alternative would decrease some biological impacts, potential geologic hazards, and public safety risks associated with the proposed Project. Specifically to the latter issue, the alternative would avoid conversion and operation activities in the vicinity of several communities that have expanded since construction of the All American Pipeline. These communities include Stallion Springs, Mountain Meadows, and the outer Barstow and Hinkley areas. This alternative would avoid any potential risks to these communities from the unlikely, but possible, event of a pipeline rupture. This alternative would also avoid fault crossings associated with the Wheeler Ridge to Daggett portion of Line 1903, including the Garlock Fault. This alternative would also avoid biological impacts to special-status species and habitats of the southern San Joaquin Valley and Tehachapi Range, including the Class I impact to the blunt-nosed leopard lizard. As the Ehrenberg to Daggett Alternative could reduce potential environmental impacts associated with the proposed Project, reasonably meets the Project objectives, and can be feasibly implemented, it is further analyzed in Section 4.0, Environmental Analysis.

Required Agency Approvals. The agency approvals for the Ehrenberg to Daggett Alternative are the same as for the proposed Project, with the exception of local approvals required by Kern County.

3.5.2 Ehrenberg to Cadiz Alternative

EPNG developed a second alternative that eliminates the potentially significant impact on public safety in the Class 2 and Class 3 areas of the pipeline, near Barstow and western Kern County. In this alternative, only the segment east of the Cadiz Pump Station (MP 215.75 to MP 303.5, approximately 88 miles) would be converted. In addition, the 6.4-mile new pipeline segment between the Cadiz Pump Station and the Mojave Pipeline would be constructed. Based on the existing pipeline integrity assessment, the MAOP of the pipeline would be 1,080 psig from Cadiz to MP 247.6, 944 psig from MP 247.6 to Ehrenberg (MP 303.5), and 1,080 psig in the new lateral from Cadiz to the Mojave Pipeline.

The conversion activities for this segment would be identical in terms of disturbance and location to those on this same segment of the proposed Project. East of Cadiz, including the lateral connecting to the Mojave Pipeline, the operation of the alternative would also be identical to the operation of the same segment of the proposed Project. EPNG would continue to maintain the internal and external integrity of the unconverted pipeline west of Cadiz with a nitrogen blanket and cathodic protection. For this alternative, however, no appurtenant facilities and gas delivery or receipts would be made west of Cadiz. No other construction activities would be conducted on the pipeline segment west of Cadiz. Hydrostatic testing of the line would use water only from the Palo Verde Irrigation District canal. This water would be discharged at the Cadiz Pump Station.

EPNG states that this alternative would substantially meet the Project purpose and need and Project objectives. The alternative would provide EPNG with an additional connection of its north system (originating in the San Juan basin) and south system (originating in the Permian basin). It would provide enhanced operational flexibility for shippers using the ENPG system. This alternative would not, however, provide additional flexibility for delivery west of Cadiz to or from southern California markets. The alternative would not allow connection to the SoCalGas system at Wheeler Ridge, or to the Kern River Pipeline at Daggett. Natural gas sent to or from southern California would require the use of existing California infrastructure at Amboy and Daggett, including the Mojave Pipeline system. The alternative would allow EPNG to receive gas at Ehrenberg from the proposed LNG projects in Mexico and deliver the gas to customers in Arizona, New Mexico, Texas, and California.

The Ehrenberg to Cadiz Alternative is very similar to the Ehrenberg to Daggett Alternative, but would convert 88 miles of pipeline, rather than 171 miles. The Ehrenberg to Cadiz Alternative would decrease some public safety, seismic and biological concerns associated with the proposed Project. Specifically, the alternative would avoid conversion and operation activities in the vicinity of several communities that have expanded since construction of the All American Pipeline. These communities include Stallion Springs, Mountain Meadows, and the outer Barstow and Hinkley areas. This alternative would reduce any potential risks to these communities from the unlikely, but possible, event of a pipeline rupture. This alternative would also avoid fault crossings associated with the Wheeler Ridge to Cadiz portion of Line 1903, including the Garlock Fault and the Calico Fault. This alternative would also avoid biological impacts to special-status species and habitats of the southern San Joaquin

Valley and Tehachapi Range, including the blunt-nosed leopard lizard, including the Class I impact to the blunt-nosed leopard lizard.

Required Agency Approvals. The agency approvals for the Ehrenberg to Cadiz Alternative are the same as for the proposed Project, with the exception of local approvals required by Kern County.

3.6 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

The State CEQA Guidelines [Section 15126.6(d)] require that an EIR include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed Project. The Guidelines (Section 15126.6 [e][2]) further state, in part, that "*If the environmentally superior alternative is the "No Project" alternative*, the EIR would also identify an environmentally superior alternative among the other alternatives".

Table ES.2 provides a comparison of the environmental impacts of each alternative evaluated in this document, including the No Project Alternative. The No Project alternative does not include any Class I or Class II impacts. Therefore, the No Project alternative is the environmentally superior alternative.

Among the other alternatives, the Ehrenberg to Cadiz Alternative avoids the Class I biological impacts and the Class I impacts to public safety associated with the proposed Project. The Ehrenberg to Cadiz Alternative converts 88 miles of pipeline, compared to 171 miles of pipeline with the Ehrenberg to Daggett Alternative. The Ehrenberg to Cadiz Alternative would, therefore, involve less ground disturbance. The avoidance of the Class I impacts of the proposed Project, and the shorter section of pipeline conversion, results in the Ehrenberg to Cadiz Alternative being environmentally superior.